Cole, Monique

DERWENT-ACC-NO: 1988-334288

DERWENT-WEEK: 198847

TITLE: Fluorine detector used with excimer laser - includes device to convert fluorine to iodine gas

PATENT-ASSIGNEE: MITSUBISHI DENKI KK[MITQ]

PRIORITY-DATA: 1987JP-0079757 (April 2, 1987)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 63247655 A	October 14, 1988	N/A	004	N/A

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
JP 63247655A	N/A	1987JP-0079757	April 2, 1987

INT-CL (IPC): G01N021/27, G01N032/00

ABSTRACTED-PUB-NO: JP 63247655A

BASIC-ABSTRACT:

Fluorine detector consists of conversion device to convert fluorine to iodine gas, and measuring device to measure the converted iodine gas optically. The conversion device consists of the first reaction column filled with KCl particles of 60-80 mesh, heater to heat the first column to 150 deg.C, the second column filled with KI particles of 60-80 mesh, heater to heat the second column to 200 deg.C. Gas cell has the heater controlled to heat to 200 deg.C, LED light source irradiates visible light of centre wavelength of 555 nm. Photodiode detector receives the light at the other end of the cell. Cooler, pressure equilibrium pipe and optical filter are provided.

ADVANTAGE - Fluorine having low extinction coefft. is converted to iodine having high extinction coefficiency to measure extinction coefft., the device is made with low cost, and measurement is effected with high precision.

CHOSEN-DRAWING: Dwg.1/6

TITLE-TERMS: FLUORINE DETECT EXCIMER LASER DEVICE CONVERT FLUORINE IODINE GAS

DERWENT-CLASS: E36 J04 L03 S03 V08

CPI-CODES: E11-Q03C; E31-B03A; J04-C04; L04-E03A;

EPI-CODES: S03-E04; V08-A04B;

CHEMICAL-CODES:
Chemical Indexing M3 *01*
Fragmentation Code
C009 C053 C100 C810 C812 M411 M740 M750 M903 M904
M910 N102 Q454
Specfic Compounds
01687A 01777A
Registry Numbers
3102R 1678D

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1687U; 1777U

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PATENT ABSTRACTS OF JAPAN

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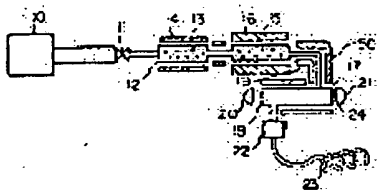
(72)Inventor : YAMAZAKI ICHIRO

(54) FLUORINE DETECTOR

(57)Abstract:
PURPOSE: To improve the accuracy of measurement by converting fluorine having a low absorptivity to iodine having a high absorptivity and measuring the absorptivity.
CONSTITUTION: The gaseous fluorine of an excimer laser device 10 is introduced through a valve 11 into a 1st reaction column 13 in which potassium chloride is packed. The fluorine is converted to hydrochloric acid in said column and the hydrochloric acid is introduced into the 2nd reaction column 15. The chlorine introduced into the column 15 forms the iodine by reacting with the potassium iodide. The quantity of the fluorine is proportional to the quantity of the fluorine; in addition, the molar absorbancy index of the fluorine is large and is most suitable to the measurement of the absorptivity and, therefore, the fluorine is measured with high accuracy by measuring the concn. of the gaseous iodine converted by a converter 12 in a deciding part 17.



LEGAL STATUS

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